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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/712,267	11/14/2003	Jeffrey D. Martin	032161R066	8051
441	7590	10/12/2006	EXAMINER	
SMITH, GAMBRELL & RUSSELL 1850 M STREET, N.W., SUITE 800 WASHINGTON, DC 20036			MAYO, TARA L	
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Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/712,267	<b>Applicant(s)</b> MARTIN, JEFFREY D.	
	<b>Examiner</b> Tara L. Mayo	<b>Art Unit</b> 3671	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 10 April 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1,3,7,9-14,18-20,23-27,30,31,34,37,39-41 and 48 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,3,7,9-14,18-20,23-27,30,31,34,37,39-41 and 48 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |                                                                                                            |                                                                                         |
|------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____                                                |

**DETAILED ACTION**

***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 13, 14, 18, 19 and 41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bonaddio et al. (U.S. Patent No. Des. 372,158) in view of Heck (U.S. Patent No. 7,036,514 B2) and Veilleux et al. (U.S. Patent No. 6,327,725 B1).

Bonaddio et al. '158, as seen in Figures 1 through 4, show a pillow comprising:

with regard to claim 1,

a foam main-body;

a plurality of foam projections in first and second groups (a group proximate the edges of the pillow and a group in the center region of the pillow) which define different support characteristic zones, and

wherein said pillow has a maximum height in a central region of said pillow;

with regard to claim 14,

said projections of the first and second groups being of a common general shape;

with regard to claim 18,

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said surface of said main body having a convex curvature that defines the maximum height central region of said pillow;

with regard to claim 19,

wherein said convex curvature extends in a lateral direction fully between front and rear longitudinal edges of said pillow; and

with regard to claim 41,

wherein the projections have a lateral direction width that is greater than a corresponding projection height.

Bonaddio et al. '158 fail to teach:

with regard to claim 1,

the pillow being formed as a monolithic, visco-elastic foam body; and

with regard to claim 13,

the foam material having a density range of 2.0 to 3.0 pcf.

Heck '514 expressly teaches the preferred use of a monolithic structure for an intra-oral pillow to prevent separation of material in response to pressure during use (col. 2, lines 19 through 22).

Veilleux et al. '725, as seen in Figures 1 and 2, show a contour pillow (10) having a main body (11) comprised entirely of visco-elastic foam (col. 2, lines 45 through 47) and expressly teaches the desirability of visco-elastic for its ability to evenly distribute loads (col. 1, lines 29 through 33).

With regard to claim 1, it would have been obvious to one having ordinary skill in the art at the time of invention to modify the device disclose by Bonaddio et al. '158 such that the pillow would be formed as monolithic structure as taught by Heck '514. The motivation would have been to prevent separation of materials during use.

With regard to claim 13, it would have been within the ordinary level of skill for one in the art of pillows at the time the invention was made to modify the device shown by Bonaddio et al. '158 such it would be made entirely of visco-elastic foam as taught to be advantageous by Veilleux et al. '725. The motivation would have been to improve the support characteristics of the pillow.

With regard to claim 13, it would have been obvious to one having ordinary skill in the art at the time the invention was made to determine an optimal density range for the visco-elastic material of the device disclosed by the combination of Bonaddio et al. '158, Heck '514 and Veilleux et al. '725, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233.

3. Claims 3, 7, 9, 10, 11, 12 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bonaddio et al. (U.S. Patent No. Des. 372,158) in view of Heck (U.S. Patent No. 7,036,514 B2) and Veilleux et al. (U.S. Patent No. 6,327,725 B1) as applied to claim 1 above, and further in view of Schaefer et al. (U.S. Patent No. 4,726,087).

The combination of Bonaddio et al. '158, Heck '514 and Veilleux et al. '725 further teaches:

with regard to claim 9,

wherein the first and second groups of projections each include longitudinally extending rows of spaced apart projections; and

with regard to claim 11,

wherein the projections within said first group are of a common size and configuration and the projections within said second group are of a common size and configuration.

The combination of Bonaddio et al. '158, Heck '514 and Veilleux et al. '725 fails to teach:

with regard to claim 3,

the pillow including first and second rows of projections, the projections in the first row having a larger radius than those in the second row;

with regard to claims 3 and 12,

the projections/extensions being cylindrical;

with regard to claim 7,

the first and second rows of projections being of different size; and

with regard to claim 10,

the projections of the first group being smaller in volume than the projections of the second group

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Schaefer et al. '087, as seen in Figures 1 and 2, show a unitary (col. 6, lines 28 through 31) foam pillow (10) comprising:

with regard to claim 3,

a first row of cylindrical foam projections (16) and a second row of cylindrical foam projections (20) and a top surface of the cylindrical projections in the first row have a larger radius than top surfaces of the cylindrical projections in said second row;

with regard to claim 7,

first and second groups of projections including multiple rows of a first size projection and a second size projection;

with regard to claim 9,

wherein said first group of multiple rows of projections include a pair of laterally spread apart longitudinally extending rows of projections in a central region of the surface of said foam main body, and wherein said second group of multiple rows of projections include a pair of longitudinally extending rows of projections that are positioned to opposite lateral sides of the pair of the longitudinally extending rows of the projections of said first group in the central region;

with regard to claim 10,

wherein the projections of said first group are smaller in volume than the projections of said second group;

with regard to claim 11,

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wherein the projections within said first group are of a common size and configuration within said first group, and wherein the projections within said second group are of a common size and configuration within said second group;  
with regard to claim 12,

wherein the projections in each of said first and second groups are cylindrical; and  
with regard to claim 20,

wherein the projections of said first group include cylindrical projections, and the projections of said second group include cylindrical projections that are laterally external to said first group of projections and are of a larger radius than a cylindrical projection in said first group.

With regard to claims 3, 7, 10 and 20, it would have been obvious to one having ordinary skill in the art of pillows at the time the invention was made to make the projections of the pillow taught by the combination of Bonaddio et al. '158, Heck '514 and Veilleux et al. '725 different sizes as taught by Schaefer et al. '087. The motivation would have been to provide differential support for a person's head.

With regard to claims 3, 12 and 20, it would have been obvious to one having ordinary skill in the art of pillows at the time the invention was made to modify the device taught by the combination of Bonaddio et al. '158 and Heck '514 such that the projections would be cylindrical as taught by Schaefer et al. '087 since it has been held that the shape of a claimed device is a matter of choice which a person of ordinary skill in the art would find obvious absent



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persuasive evidence that the particular configuration of the claimed device is significant. *In re Dailey*, 357 F.2d 669, 149 USPQ 47 (CCPA 1966).

4. Claims 23 through 27, 30, 31, 39, 40 and 48 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bonaddio et al. (U.S. Patent No. Des. 372,158) in view of Schaefer et al. (U.S. Patent No. 4,726,087) and Dixon (U.S. Patent No. Des. 317,236).

Bonaddio et al. '158, as applied to claim 1 above, further show:

with regard to claim 23,

first and second types of projections isolated from one another within a respective zone to expose regions of the main body that surround respective projection base-to-main body contact edging;

with regard to claim 24,

the first and second types of projections including laterally spaced apart longitudinally extending rows of projections;

with regard to claim 27,

the pillow having a symmetric relationship with respect to projection types about a centrally located longitudinal cross-section line;

with regard to claim 31,

a main body of foam;

a first row of foam projections of a first projection type; and

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a central zone of foam projections of a second projection type, said first row of foam projection of said first projection type being positioned laterally of said central zone of foam projections;

with regard to claim 39,

wherein each of said first type of projection and said second type of projection has a lateral direction width that is greater than a corresponding height projection.

Schaefer et al. '087, as seen in Figures 1 and 2, further show:

with regard to claim 23,

a main body (12 and 14, in combination);

cylindrical projections (22) arranged in a plurality of rows extending off said main body, and said projections including a first type of projection (20) having a first support characteristic and a second type of projection (16) having a second support characteristic, with said first and second projection types being arranged on said main body to define first and second different support characteristic zones

Bonaddio et al. '158 in view of Schaefer et al. '087 fail to teach:

with regard to claim 23,

a third projection type defining a third different support characteristic zone;

with regard to claim 24,

the third projection type including a longitudinally extending ridge extension;

with regard to claim 25,

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a second longitudinally extending ridge extension;

with regard to claim 30,

the first and second projection types being cylindrical; and

the first projection type being smaller than the second projection type;

with regard to claim 31,

a first foam ridge extension extending along a front edge region of the main body and positioned on the opposite lateral side of the first row of foam projections as the central zone of foam projections;

with regard to claim 40,

the exposed portion of the main body occupying about 10 to 30% of the generally rectangular outline; and

with regard to claim 48,

the central zone being less firm in support than the lateral zones.

Dixon '236 shows a pillow comprising a plurality of projections in a central region bordered by longitudinal ridge extensions extending along front and rear longitudinal edges of the main body of the pillow past a plurality of projections in an adjacent row in an uninterrupted fashion.

With regard to claims 23 through 25 and 31, it would have been obvious to one having ordinary skill in the art of pillows at the time the invention was made to modify the device shown by the combination of Bonaddio et al. '158 and Schaefer et al. '087 such that it would include

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first and second foam ridge extensions on the edges as taught to be desirable by Dixon '236. The motivation would have been to provide support for the neck area of a user.

With further regard to claim 23, it would have been obvious to one having ordinary skill in the art at the time the invention was made to determine an optimal density range for the visco-elastic material of the device disclosed by the combination of Bonaddio et al. '158, Schaefer et al. '087 and Dixon '236, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233.

With further regard to claim 23 and with regard to claim 40, Applicant has not shown that the particular dimensions recited in the claims are critical or provide an unexpected result. As such, the limitations are met by the device taught by the combination of Bonaddio et al. '158, Schaefer et al. '087 and Dixon '236 which is capable of being manufactured to the claimed dimensions. *In re Woodruff*, 919 F.2d 1575, USPQ2d 1934 (Fed. Cir. 1990).

With regard to claims 26 and 48, the combination of Bonaddio et al. '158 and Schaefer et al. '087 as modified by Dixon '236 show a pillow wherein the first, second and third projection types are arranged laterally in a sequence of said first ridge extension (70, 71 and 72), a first longitudinal row of said second type projection (16), a pair of longitudinal rows of said first type projection (20), a second longitudinal row of said second type projection (18) and a second ridge extension (70, 71 and 72).

With regard to claim 30, it would have been obvious to one having ordinary skill in the art of pillows at the time the invention was made to modify the device taught by Bonaddio et al. '158 such that the projections would be cylindrical as taught by Schaefer et al. '087 since it has

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been held that the shape of a claimed device is a matter of choice which a person of ordinary skill in the art would find obvious absent persuasive evidence that the particular configuration of the claimed device is significant. *In re Dailey*, 357 F.2d 669, 149 USPQ 47 (CCPA 1966).

With regard to claim 30, it would have been obvious to one having ordinary skill in the art of pillows at the time the invention was made to make the projections of the pillow taught by Bonaddio et al. '158 different sizes as taught by Shaefer et al. '087. The motivation would have been to provide differential support for a person's head.

5. Claim 34 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bonaddio et al. (U.S. Patent No. Des. 372,158) in view of Dixon (U.S. Patent No. Des. 317,236).

Bonaddio et al. '158, as best seen in Figures 1, 3 and 4, show:

with regard to claim 34,

a foam main body having a longitudinal length and a lateral width and a convex upper surface; and

a plurality of projections extending up off said convex surface and arranged in different support characteristic groupings (i.e., groups of projections will support different parts of a user's head and/or neck);

wherein the projections are independent projections that are isolated from one another relative to an underlying and supporting exposed main body surface and thus free from contact with each other.

Bonaddio et al. '158 fail to teach:

a longitudinal ridge of extension for neck contact.

Dixon '236 shows a pillow comprising a plurality of projections in a central region bordered by longitudinal ridge extensions.

With regard to claim 34, it would have been obvious to one having ordinary skill in the art at the time of invention to modify the device disclosed by Bonaddio et al. '158 such that it would include the longitudinal ridge extensions taught by Dixon '236. The motivation would have been to provide support for the neck area of a user.

6. Claim 37 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bonaddio et al. (U.S. Patent No. Des. 372,158) in view of Dixon (U.S. Patent No. Des. 317,236) as applied to claim 34 above, and further in view of Schaefer et al. (U.S. Patent No. 4,726,087).

The combination of Bonaddio et al. '158 and Dixon '236 fails to teach:  
the projections being cylindrical and including a first group having a smaller radius than that of a second group.

Schaefer et al. '087, as seen in Figures 1 and 2, disclose a pillow comprising:  
a main body (12 and 14, in combination);  
projections (22) arranged in a plurality of rows extending off said main body, and said projections including a first type of projection (20) having a first support characteristic and a

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second type of projection (16) having a second support characteristic, with said first and second projection types being arranged on said main body to define first and second different support characteristic zones, and wherein the first projection type is smaller than the second projection type.

With regard to claim 37, it would have been obvious to one having ordinary skill in the art of pillows at the time the invention was made to modify the device taught by the combination of Bonaddio et al. '158 and Dixon '236 such that the projections would be cylindrical as taught by Schaefer et al. '087 since it has been held that the shape of a claimed device is a matter of choice which a person of ordinary skill in the art would find obvious absent persuasive evidence that the particular configuration of the claimed device is significant. *In re Dailey*, 357 F.2d 669, 149 USPQ 47 (CCPA 1966).

With regard to claim 37, it would have been obvious to one having ordinary skill in the art of pillows at the time the invention was made to make the projections of the pillow taught by the combination of Bonaddio et al. '158 and Dixon '236 different sizes as taught by Shaefer et al. '087. The motivation would have been to provide differential support for a person's head.

#### *Comments*

7. Applicant is advised to carefully review the claims for proper antecedent basis. For example, some claims recite "said first group" and should recite --a first group--. The instances are too numerous for the Examiner to cite.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tara L. Mayo whose telephone number is 571-272-6992. The examiner can normally be reached on Monday through Friday 8:30 AM to 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas B. Will can be reached on 571-272-6998. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

tlm  
07 October 2006

  
**TARA L MAYO**  
**PATENT EXAMINER**